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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/389,939	09/03/1999	PAUL T. GREEN	321.5452USU	6068

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EXAMINER

CUFF, MICHAEL A

ART UNIT	PAPER NUMBER
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3627

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/389,939

Applicant(s)

GREEN, PAUL T.

Examiner

Michael Cuff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 18-24, 26-29, 42-44, 47, 50 and 51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-24, 26-29, 42-44, 47, 50 and 51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to After Final Papers***

1. Applicant has submitted amendments to the specification on January 14, 2005 and January 18, 2005. The amendment on the 18<sup>th</sup> supercedes the amendment filed on the 14<sup>th</sup>. The amendment adds a statement in the first line of the specification claiming priority to provisional application 60/099,272, filed on September 4, 1998. This amendment has been entered.
2. Applicant has submitted, January 18, 2005, an affidavit under 37 CFR 1.131 declaring that he had conceived his invention prior to August 25, 1998. Exhibit 1 was provided. Exhibit 1 is not labeled and is not described in the affidavit as to what it is. During a phone conversation with Robert Hubert, applicant's attorney, on February 4, 2005, it was learned that the unlabeled attachment was a draft copy of applicant's application. The examiner has had this paper labeled as Exhibit 1 in the electronic file wrapper. There is evidence, such as editing changes, that exhibit 1 was completed prior to the submission of the provisional application. The editing changes also suffice to show diligence for the 10 days that is being sworn behind.
3. As a result of the above papers, a new final rejection is being issued. The final is proper based on the amendments made after the non-final rejection, mailed April 6, 2004. The references being used are mathworks.com, dated December 12, 1997 and Chaudhuri et al. (6,212,526, filed December 2, 1997, note this is not the same reference as used before, but it is the same inventor. )

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-24, 26-29, 42-44, 47 and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over mathworks.com, (December 12, 1997 Internet publication) in view of Chaudhuri et al. (US patent 6,212,526)

Mathworks.com shows all of the limitations of the claims except for specifying the data filtering steps.

Mathworks.com shows an integration software system. MATLAB, which is short for matrix laboratory, provides a system that can combine many different tools in order to solve particular classes of problems. One of the toolboxes is the "Financial Toolbox". The "Financial Toolbox" requires the services of the "Statistics Toolbox" and the "Optimization Toolbox". The "Financial Toolbox" can perform many different types of analyses based on a large database of information (information can include price, yield sensitivity, i.e. parameter limiters) on many financial instruments. In support of the "Financial Toolbox", the "Statistics Toolbox" can produce a histogram frequency and observed values (categories). The GUI tools support the above toolboxes. These interactive GUI displays allow one to explore data, experiment with changes to inputs, and view the results of hypothetical changes – all in a single screen (displaying).

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Methods of using these tools for individual specific applications have been anticipated and are inherent features of the mathworks.com system.

Chaudhuri et al. teaches, figure 3A, a method for efficient mining of classification models from multi-dimensional databases. A classification task is where the target data is not specified via an exact query, but is specified implicitly by labeling records in the data. The scheduler switches from sequential access of all records in the database to indexed (filtered) access of a subset of records within the database. See column 1 lines 42-56 for an example application. Column 6, lines 10-16, emphasizes using data contained in a previous scan of database

Based on the teaching of Chaudhuri et al., it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the Mathworks.com system to use the Chaudhuri et al. system of data mining database in order to efficiently provide data to the mathworks.com analyses.

### ***Response to Arguments***

5. Applicant's arguments filed 1/18/05 have been fully considered but they are not persuasive.

Applicant assert that Mathworks does not mention searching a universe of financial instruments. First, applicant does not claim searching. The claims are drawn to filtering. Second, Mathworks does show statistical analyses on financial instruments. The examiner believes that it is an inherent feature that some data was gathered to analyze.

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Applicant asserts that Mathworks does not even mention that Statistics Toolbox produces histograms for a search procedure. The examiner does not concur. Mathworks teaches using statistical analyses on financial instruments including displaying histograms for any given set of data. Mathworks is silent to where the data comes from, which is why the combination with a data mining reference to show a search procedure is so logical.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cuff whose telephone number is (703) 308-0610. The examiner can normally be reached on 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on (703) 308-5183. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Handwritten signature of Michael Cuff and the date 2/9/05.

Michael Cuff  
February 9, 2005